

ROLL CRUSHER TEETH HAVING HARD COMPACT MATERIAL INSERTS

ABSTRACT OF THE DISCLOSURE

The present invention provides a rock crusher tooth design which when exposed to material flows during operation of the rock/material crusher will increase the wear life of the tooth by resisting wear caused by a material flow across, onto, and around the tooth. It is a general object of the present invention to provide a rock crusher with a plurality of teeth formed integrally therein. The tooth has a design that significantly improves the wear resistance of each tooth. The tooth structure includes a plurality of hard material compact inserts integrated within the tooth structure. The compact inserts are integrally formed with the teeth into unitary structures. In an embodiment of the invention, hard abrasive material, such as tungsten-carbide compact inserts, are appropriately positioned in a steel cast tooth mold, the steel flows into spaces between and around the tungsten-carbide inserts trapping them in a steel matrix. The casting method results in an integral unitary steel tooth.